



HOW CAN THE COLD CHAIN INDUSTRY KEEP PACE WITH CONSUMER TRENDS?

Cold storage has always presented a tricky challenge with many logistical hurdles to navigate, especially for those looking to deploy mobile devices into temperature-controlled environments to help improve workflow efficiency.

But the industry as a whole is going through some of the most dramatic changes seen in decades, and there are no signs that the pace of that change will slow anytime soon.

The power behind this change is very much driven by new consumer demands. Prioritising convenience, offering more delivery options, supplying diversity in choice and addressing health needs are just a few of the rapidly developing areas that are forcing many in the cold chain to adapt quickly, or risk losing out.

For example, the move from processed foods with a long shelf life to locally-sourced and temperature-sensitive items requires sweeping changes behind the scenes to provide the service consumers demand.

To rise to these new demands, many cold chain businesses will look to technology to help them become more efficient and able to react to customer demand and changes in the way they need to deliver their services.

It may seem like a daunting challenge, but for those that can adapt and implement effective mobile technology there is also a huge opportunity to meet new demands and build a strategy that will not only work today but will also meet new challenges in the future.

UNDERSTANDING CONSUMER HABITS

Today's consumer has a wealth of options to tailor their shopping experience and access a variety of items that

older generations would not have had access to. One knock-on effect of this to the cold storage environment is that fresh and chilled items are being ordered in smaller quantities, but from a wider range, with a quick delivery expected.

This is an example of how consumer trends are rapidly outgrowing traditional supply chain models, as having the agility to deliver small batches of fresh, local produce is not how many businesses are geared.

As well as fresh food and consumable items, the pharmaceuticals industry is also under pressure to improve cold storage processes as a significant section of new drug approvals relate to drugs that require temperature-controlled storage and transportation.

Figures are expected to rise further with more temperature-controlled vaccines and biological drugs in development.

The bottom line is that the requirements on cold storage are changing rapidly and new tactics are needed, fast. Trying to achieve a new model without having a strategy for integrating technology will be almost impossible. On the other hand, making the right technology choices can transform a business.

However, there are many roadblocks standing in the way when it comes to deploying mobile devices in a low temperature environment.

DEALING WITH DEVICE ISSUES

So what are the typical challenges that mobile device users face in cold storage? Well, without specialised rugged equipment many devices cannot guarantee stability at

temperatures under 0°C. The most common issues are linked with the battery, as discharge rates and charging times can be affected by the cold. What's more, constant exposure to cold temperatures can reduce the expected life of a battery by up to half.

Screen damage is also common. LCD screens are not well-suited to cold environments and touchscreens often experience input delays. Screen rigidity can also lead to cracking or shattering. Frost and condensation are two other issues that can affect the screen as well as other internal parts.

Depending on the device, several internal components will be at risk. Scanning and processing may be affected, along with any other moving parts susceptible to freezing temperatures, meaning that workers can be left with a device that is unable to help them complete their tasks.



SOLVING THE PUZZLE

The good news is that modern, rugged devices are available that can deal with harsh temperatures without succumbing to the problems noted above.

Most often this involves internal heat sources and seals designed to prevent condensation and battery draining due to the cold temperature. But it can also involve simple, practical improvements, such as adding large buttons that can be used even when using thick gloves. These small innovations are now commonplace but build up to make a huge difference to cold chain operations.

As well as physical problems, you may also want to consider whether the operating system and software you use is appropriate. For example, will you be using a system that users are familiar with? How does that affect training? Will software automatically update so that users have the latest version?

Integrating new technology into a fully functioning and increasingly busy cold store environment is a challenge. But making the right decisions now can help businesses adapt to trends today and in years to come.

A trusted logistics expert who understands your business challenges can help you refine and establish your operational and strategic objectives and make the right choices regarding the devices needed. They can also help with deployment and with any training that may be needed to work with specialist devices.

MANAGEMENT

Trends will continue to change, but the pressure on maintaining device availability remains constant. A system that offers a real-time view of inventory and orders can help, allowing cold chain managers to be confident in the ability of their business to deliver and feel assured when taking on new contracts to grow their business.

Giving employees the tools to do their job, backed up by a solid warehouse management system, will not only boost productivity and efficiency but can also boost morale too. This can be crucial when new scenarios require new thinking in order to solve problems.

Implementing a management system on top of a rollout of new devices can be a complex process, but with the support of a logistics expert it can be a smooth transition that will ensure you are futureproofed. A good logistics partner will look at the situation as a whole and design a solution that can be phased-in according to businesses readiness, finances and capability.

For more information on cold storage and the devices that can help make a difference visit [TouchStar's website](https://www.touchstar.co.uk) or call +44 (0) 161 874 5050.